## Lesson 25: Divide Decimals by Decimals

* Let’s divide decimals by decimals.

### Warm-up: Number Talk: Same/Different

Find the value of each expression mentally.

* $20÷2$
* $2÷0.2$
* $50÷2$
* $5÷0.2$

### 25.1: Dividing by a Tenth and a Hundredth

1. To find the value of $1.6÷0.1$, Jada drew this diagram.
	1. Describe how the diagram shows 1.6.
	* 
	1. Describe how the diagram shows 16 groups of 1 tenth.
	2. Describe how the diagram shows the value of $1.6÷0.1$.
	3. Describe how the diagram also represents the expression $160÷10$.
2. Explain how this diagram represents $1.3÷0.01$.
* 
	1. What is the value of $1.3÷0.01$? Explain or show your reasoning.

### 25.2: Divide Decimals by Decimals

Find the value of each expression. Explain or show your reasoning.

1. $5÷0.1$
2. $5÷0.01$
3. $0.5÷0.1$
4. $0.5÷0.01$
5. $0.02÷0.01$
6. $1.53÷0.01$

### Section Summary

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In this section we learned to divide with decimals. We studied different ways to find a quotient like $3÷0.1$. We can draw a diagram which shows that there are 10 groups of 0.1 in each whole so there are $3×10$ or 30 groups of 0.1 in 3 wholes: $3÷0.1=30$.



We can also think about place value. We know 3 is 30 tenths and 0.1 is 1 tenth, so $3÷0.1$ is equivalent to $30÷1$ which has the value 30. We also can use multiplication to find the value of $3÷0.1$. We know that $10×0.1=1$ and $30×0.1=3$ so this also shows that $3÷0.1=30$.



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